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10/762,430

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EXAMINER

RACHUBA, MAURINA T

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/762,430
Filing Date: January 22, 2004
Appellant(s): BORZYM, JOHN J.

MAILED

OCT 11 2007

Group 3700

Thomas N. Young
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 11 July 2007 appealing from the Office
action mailed 07 July 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

3,874,122	Ward	4-1975
4,003,279	Carmichael et al	11-1977

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

Applicant's amended claims 5 and 6 have overcome the rejection under 35 USC 112, 2nd paragraph.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-6, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carmichael et al, 4,003,279 in view of Ward, 3,874,122. Carmichael, figure 1, and column 2, lines 35-45, and lines 53-63, column 3, lines 57-61, discloses a supported shear of the type which shears tube stock by lateral displacement of adjacent lengths of stock along a shear plane extending orthogonally through the stock: a mandrel (column 2, lines 35-45) to be placed within the stock; stationary tooling (column 2, lines 35-45) for receiving and holding the stock; movable tooling 6 adjacent the stationary tooling for receiving the stock, and means for orbiting the movable tooling in opposite directions (column 3, lines 57-61). Carmichael does not disclose means including first and second hydraulic cylinders, a pinion connected to the movable tooling; a first rack engaged with the pinion and mounted for linear translation to rotate the pinion in a first direction; and a second rack engaged with the pinion and mounted

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for linear translation to rotate the pinion in a second direction,: a hydraulic power means for causing simultaneous linear translation of the first and second racks in opposite directions; means for varying the power level of the hydraulic power means during translation of the rack; the total linear displacement of the first rack is at least approximately equal to one revolution of the drive shaft. Ward, figure 2, in a device for providing movement to a support, teaches providing a pinion **17** connected to a movable support; a first rack **12** engaged with the pinion and mounted for linear translation to rotate the pinion in a first direction; and a second rack **13** engaged with the pinion and mounted for linear translation to rotate the pinion in a second direction,: a hydraulic power means **14, 15** for causing simultaneous linear translation of the first and second racks in opposite directions; means for varying the power level of the hydraulic power means during translation of the rack (appellant's means is a conventional valve pressure to be gradually applied as desired, see page 9, first full paragraph of the specification); here, the means to vary the power level of the hydraulic power disclosed by Ward is the reversal of the flow of hydraulic liquid, in that the reversal is not instantaneous, and the power level must be slowed to allow the reversal, see column 3, lines 2-9, this switch is the equivalent to a valve to control flow; the total linear displacement of the first rack is at least approximately equal to one revolution of the drive shaft, see column 2, lines 39-53. Because both references teach apparatus for causing linear movement, it would have been obvious to one of ordinary skill in the art to substitute one method for the other to achieve the predictable result of moving the

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movable die in reversible directions. *KSR International Co. v. Teleflex Inc.*; 550 U.S.---, 82 USPQ2d 1385 (2007).

Further, Carmichael discloses a first, fixed die for holding the stock; a second, movable die for holding the stock immediately axially adjacent the first fixed die to define a shear plane between the two dies; and means for alternately driving the second, movable die in opposite directions through an orbital path, however, the means is not equivalent to the means disclosed by applicant, that of first and second hydraulic cylinders operatively connected to drive the second, movable die. Ward teaches first and second hydraulic cylinders operatively connected to a support to drive the support in a reversible manner. Because both references teach apparatus for causing linear movement, it would have been obvious to one of ordinary skill in the art to substitute one linear-to-rotary motion device for the other to achieve the predictable result of moving the movable die in reversible direction. *KSR International Co. v. Teleflex Inc.*; 550 U.S.---, 82 USPQ2d 1385 (2007).

(10) Response to Argument

Appellant argues that the examiner's conclusion of obviousness is based upon improper hindsight reasoning. The examiner disagrees. It must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA

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1971). Here, Ward clearly discloses that the actuator of two racks driving a pinion, the racks driven by hydraulic power, are conventional. It is the examiner's position that one of ordinary skill in the art would know of conventional, linear-to-rotary motion drivers, and would select such drivers based on known criteria, such as availability of power, and the level of power and control needed, see Ward, column 1, lines 54-57.

Further applicant argues that Carmichael discloses that the tooling may be moved through 180° and in opposite directions, but does not provide the structure for doing so, only that the device requires "additional complexity". Applicant considers that "additional complexity" teaches away from applicant's claimed invention, as it is "clearly negative" in nature. The examiner disagrees that Carmichael teaches away from moving the tooling through 180° in opposite directions. That such moving might require more complex structure is not a teaching away from applicant's claimed invention, only that other moving devices are required. The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Here, it is the examiner's position that the combined teachings of the device of Carmichael combined with the moving means taught as conventional by Ward would suggest applicant's broadly claimed invention to one of ordinary skill in the art.

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Applicant further argues that Ward is non-analogous art. Applicant argues that Ward is not in applicant's field of endeavor, tube cutting, and further is not reasonably pertinent to the particular problem, making a shear operate more advantageously. The examiner strongly disagrees. Applicant's field of endeavor is machine tools, in that the invention is a machine that provides a tool for cutting. Ward is a machine tool, in that Ward provides a machine with a tool for grinding. That the tools may provide different effects (although the class definition for class 451, Abrading (previously class 51) states that abrading is a form of cutting), they are still both machine tools that each require converting linear motion (the motion of the racks) to rotary motion (the motion of the pinion). Further, Ward is reasonably pertinent to applicant's particular problem, that of driving a movable support in a controlled manner. That applicant may have other secondary reasons, or other structures as part of the disclosed invention is moot. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/M. Rachuba/
Primary Patent Examiner
Art Unit 3723

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SPE 3725

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